

## **Household's willingness to pay for drinking water quality service improvement in Damaturu, Nigeria.**

### **Abstract**

Human existence depends largely on availability of water both in high quality and sustainable supply. Improved quality drinking water has the ability to improve our standard of living, reduces mortality rates and morbidity associated with water born diseases. Damaturu have witnessed unprecedented increase and influx of population due to its new status by been made the capital of Yobe State in 1991, provision of safe drinking water thus became a matter of serious concern and this led to prevalence of water borne diseases like diarrhea and other gastro intestinal disorder. Yobe State has embarked on the construction of "Damaturu regional water supply project" which promises 100% access to portable water to Damaturu. The general objective of the study is to assess the household's willingness to pay for an improved quality drinking water. Choice experiment approach was used, and four attributes of drinking water quality were identified namely; tap water quality (TWQ), Tap water supply (TWS) tap water pressure (TWP) and Price. Conditional logit model (CLM), involving randomized sampling of 300 respondents was carried out. The results were found that respondents with higher level of education are more willing to pay. Identifying the mix of attributes and their prices based on respondents' drinking water quality demand preferences would help policy makers to know and provides the households with a preferred and affordable drinking water and also facilitates effective tariff structure for cost recovery and sustainability.

**Keyword:** Choice experiment; Water quality; Household preference; Choice modeling; Willingness to pay; Conditional logit model.